

WHAT IS CLAIMED IS:

1. A method for obtaining exclusive control of a printing device by a recipient to print data intended for the recipient, the method comprising the steps of:

authenticating the recipient;

providing the recipient exclusive control of the printing device's print capabilities after the recipient has been authenticated; and

temporarily deferring print data not intended for the recipient from being printed and printing print data intended for the recipient during a period in which the recipient has exclusive control of the printing device's print capabilities.

2. A method according to Claim 1, wherein the print data not intended for the recipient is deferred by the printing device providing a busy indication.

3. A method according to Claim 1, wherein the print data not intended for the recipient is deferred by being temporarily stored and a reference to a print data storage location is sent to a print queue until the recipient relinquishes control of the printing device's print capabilities.

4. A method according to Claim 1, wherein the print data not intended for the recipient is deferred by being rejected by the printing device.

5. A method according to Claim 1, wherein, once the recipient has exclusive control of the printing device's print capabilities, the recipient selects which print jobs to print.

6. A method according to Claim 1, wherein the print data intended for the recipient is stored in a location other than in a print queue and a reference to the stored print data location is provided to the print queue.

7. A method according to Claim 1, wherein the recipient gains exclusive control of the printing device's print capabilities by being authenticated utilizing a smart card device.

8. A method according to Claim 1, wherein the recipient gains exclusive control of the printing device's print capabilities by being authenticated utilizing a keypad and entering a user code, a personal identification number, or a password.

9. A method according to Claim 1, wherein the recipient gains exclusive control of the printing device's print capabilities by being authenticated utilizing a biometric device.

10. A method according to Claim 1, wherein said step of providing exclusive control of the printing device's print capabilities includes verifying that the recipient is authorized to obtain exclusive control of the printing device's print capabilities.

11. A method according to Claim 1 further comprising the steps of:

tracking printing device resources utilized in printing data during the period in which the recipient has exclusive control of the printing device's print capabilities; and

correlating the tracked resources to the authenticated recipient.

12. A method according to Claim 11, wherein the tracked resources comprise at least one of a number of printed pages, recording medium type, and amount of ink, toner or other medium utilized in printing the data.

13. A method according to Claim 5, wherein, once the recipient has gained exclusive control of the printing device's print capabilities, the recipient selects print data to print from a network.

14. An apparatus for printing images, comprising:

an authentication device that authenticates a recipient;

a print engine controlling printing operations of the apparatus;

a print queue temporarily storing and buffering print data submitted to the apparatus for printing; and

control means for permitting a recipient to control print capabilities of the apparatus after the recipient has been authenticated,

wherein, after the recipient is authenticated, print data not intended for the recipient is temporarily deferred from being printed and print data intended for the recipient is printed out during a period in which the recipient has control over the apparatus' print capabilities.

15. An apparatus according to Claim 14, wherein the print data not intended for the recipient is deferred by the apparatus providing a busy indication.

16. An apparatus according to Claim 14, wherein the print data not intended for the recipient is deferred by being temporarily stored and a reference to a print data storage location being sent to a print queue until the recipient relinquishes control of the apparatus' print capabilities.

17. An apparatus according to Claim 14, wherein the print data not intended for the recipient is deferred by being rejected by the apparatus.

18. An apparatus according to Claim 14 further comprising a print job selection device, wherein, once the recipient has control of the apparatus' print capabilities, the recipient selects which print jobs to print.

19. An apparatus according to Claim 14, wherein the print data intended for the recipient is stored in a location other than in the print queue

and a reference to the stored print data location is provided to the print queue.

20. An apparatus according to Claim 14, wherein the recipient gains control of the apparatus' print capabilities by being authenticated utilizing a smart card device.

21. An apparatus according to Claim 14, wherein the recipient gains control of the apparatus' print capabilities by being authenticated utilizing a keypad and entering a user code, a personal identification number, or a password.

22. An apparatus according to Claim 14, wherein the recipient gains control of the apparatus' print capabilities by being authenticated utilizing a biometric device.

23. An apparatus according to Claim 14 further comprising:

a tracking device that tracks printing resources utilized in printing data during the period in which the recipient has control over to the apparatus' print capabilities; and

a correlating device that correlates the tracked resources to the authenticated recipient.

24. An apparatus according to Claim 23, wherein the tracked resources comprise at least one of a number of printed pages, recording medium type, and amount of ink, toner or other medium utilized in printing the data.

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25. An apparatus according to Claim 18, wherein the selection device provides an interface with an network such that, once the recipient has gained control of the printing device's print capabilities, the recipient selects print data to print from the network.

26. Computer-executable process steps for obtaining exclusive control of a printing device by a recipient to print data intended for the recipient, the computer-executable process steps comprising:

authenticating the recipient;  
providing the recipient exclusive control of the printing device's print capabilities after the recipient has been authenticated; and  
temporarily deferring print data not intended for the recipient from being printed and printing print data intended for the recipient during a period in which the recipient has exclusive control of the printing device's print capabilities.

27. Computer-executable process steps according to Claim 26, wherein the print data not intended for the recipient is deferred by the printing device providing a busy indication.

28. Computer-executable process steps according to Claim 26, wherein the print data not intended for the recipient is deferred by being temporarily stored and a reference to a print data storage location being sent to a print queue until the recipient relinquishes control of the printing device's print capabilities.

29. Computer-executable process steps according to Claim 26, wherein the print data not intended for the recipient is deferred by being rejected by the printing device.

30. Computer-executable process steps according to Claim 26, wherein, once the recipient has exclusive control of the printing device's print capabilities, the recipient selects which print jobs to print.

31. Computer-executable process steps according to Claim 26, wherein the print data intended for the recipient is stored in a location other than in a print queue and a reference to the stored print data location is provided to the print queue.

32. Computer-executable process steps according to Claim 26, wherein the recipient gains exclusive control of the printing device's print capabilities by being authenticated utilizing a smart card device.

33. Computer-executable process steps according to Claim 26, wherein the recipient gains exclusive control of the printing device's print capabilities by being authenticated utilizing a keypad and entering a user code, a personal identification number or a password.

34. Computer-executable process steps according to Claim 26, wherein the recipient gains exclusive control of the printing device's print

capabilities by being authenticated utilizing a biometric device.

35. Computer-executable process steps according to Claim 26, wherein said step of providing exclusive control of the printing device's print capabilities includes verifying that the recipient is authorized to obtain exclusive control of the printing device's print capabilities.

36. Computer-executable process steps according to Claim 26 further comprising the steps of:

tracking printing device resources utilized in printing data during the period in which the recipient has exclusive control of the printing device's print capabilities; and

correlating the tracked resources to the authenticated recipient.

37. Computer-executable process steps according to Claim 36, wherein the tracked resources comprise at least one of a number of printed pages, recording medium type, and amount of ink, toner or other medium utilized in printing the data.

38. Computer-executable process steps according to Claim 30, wherein, once the recipient has gained exclusive control of the printing device's print capabilities, the recipient selects print data to print from a network.

39. A method of printing images on a printing device, comprising the steps of:



obtaining control over printing operations of the printing device; and

performing a process to print out an image by the printing device during a period of control over the printing device.

40. A method according to Claim 39, wherein the obtaining control step comprises deferring of all print jobs submitted to a print queue for printing by the printing device.

41. A method according to Claim 39, wherein the obtaining control step comprises control over all communication interfaces of the printing device.

42. A method according to Claim 39, wherein the obtaining control step comprises control over network access to the printing device.

43. A method according to Claim 39, wherein control over the print operations comprises control over print engine operations of the printing device.

44. A method according to Claim 39, wherein the performing step comprises accessing print data over a network to be printed by the printing device.

45. A method according to Claim 44, wherein the network is an Internet or an intranet.

46. A method according to Claim 40, wherein the performing step comprises accessing at least one print job in the print queue.

47. A method according to Claim 39, wherein the performing step comprises performing a copying operation.

48. A method according to Claim 39, wherein the performing step comprises performing a facsimile operation.

49. A method according to Claim 39, wherein the obtaining control step comprises authenticating a recipient.

50. A method according to Claim 49, wherein the recipient obtains control before the recipient is authenticated.

51. A method according to Claim 49, wherein the recipient obtains control after the recipient is authenticated.

52. A method according to Claim 49, further comprising the steps of:

tracking printing device resources utilized during the performing step; and correlating the tracked resources to the authenticated recipient.

53. A method according to Claim 52, wherein the tracked resources comprise at least one of a number of printed pages, recording medium type,

and amount of ink, toner or other medium utilized in the performing step.

54. A method of controlling printing operations of a printing device, comprising the steps of:

obtaining control over the printing operations of the printing device; and

maintaining control over the printing operations until control is manually relinquished by a recipient who has obtained control.

55. A method according to Claim 54, wherein the recipient performs a process to access print data to print out an image by the printing device while control is maintained over the printing device.

56. A method according to Claim 54, wherein the obtaining control step comprises deferring of all print jobs submitted to a print queue for printing by the printing device.

57. A method according to Claim 54, wherein the obtaining control step comprises control over all communication interfaces of the printing device.

58. A method according to Claim 54, wherein the obtaining control step comprises control over network access to the printing device.

59. A method according to Claim 54, wherein control over the print operations comprises

control over print engine operations of the printing device.

60. A method according to Claim 55, wherein the performing step comprises accessing print data over a network to be printed by the printing device.

61. A method according to Claim 60, wherein the network is an Internet or an intranet.

62. A method according to Claim 56, wherein the performing step comprises accessing at least one print job in the print queue of the printing device.

63. A method according to Claim 55, wherein the performing step comprises performing a copying operation.

64. A method according to Claim 55, wherein the performing step comprises performing a facsimile operation.

65. A method according to Claim 54, wherein the obtaining control step comprises authenticating a recipient.

66. A method according to Claim 65, wherein the recipient obtains control before the recipient is authenticated.

67. A method according to Claim 65, wherein the recipient obtains control after the recipient is authenticated.

68. A method according to Claim 65, further comprising the steps of:

the authenticated recipient performing a process to print out an image by the printing device while control is maintained over the printing device;

tracking printing device resources utilized during the performing step; and

correlating the tracked resources to the authenticated recipient.

69. A method according to Claim 68, wherein the tracked resources comprise at least one of a number of printed pages, recording medium type, and amount of ink, toner or other medium utilized in the performing step.

70. A printing apparatus, comprising:  
a print engine controlling printing operations of the apparatus;

a control device for permitting a recipient to obtain control over the printing operations of the apparatus; and

a print data access device for performing a process to access print data to be printed by the printing apparatus.

71. A printing apparatus according to Claim 70, wherein the control device defers printing

of all print jobs submitted to a print queue of the apparatus.

72. A printing apparatus according to Claim 70, wherein the control device controls all communication interfaces of the apparatus.

73. A printing apparatus according to Claim 70, wherein the control device controls network access to the apparatus.

74. A printing apparatus according to Claim 70, wherein the control device controls the print engine.

75. A printing apparatus according to Claim 70, wherein the access device performs a process to access print data over a network.

76. A printing apparatus according to Claim 75, wherein the network is an intranet or an Internet.

77. A printing apparatus according to Claim 71, wherein the access device performs a process to access at least one deferred print job in the print queue.

78. A printing apparatus according to Claim 70, wherein the access device performs a copying process.

79. A printing apparatus according to Claim 70, wherein the access device performs a facsimile process.

80. A printing apparatus according to Claim 70, wherein the control device comprises an authentication device for performing an authentication process of the recipient.

81. A printing apparatus according to Claim 80, wherein the control device permits the recipient to obtain control before the recipient is authenticated.

82. A printing apparatus according to Claim 80, wherein the control device permits the recipient to obtain control after the recipient is authenticated.

83. A printing apparatus according to Claim 80, further comprising:

a tracking device that tracks printing resources utilized in printing data during a period in which the recipient has control of the printing operations; and

a correlating device that correlates the tracked resources to the recipient.

84. A printing apparatus according to Claim 83, wherein the tracked resources comprise at least one of a number of printed pages, recording medium type, and amount of ink, toner or other medium utilized in printing the data.

85. A printing apparatus, comprising:  
a print engine controlling printing operations of the apparatus;  
a control device for permitting a recipient to obtain control over the printing operations of the apparatus and to maintain control until a time when the recipient relinquishes control; and  
a relinquishing device for relinquishing control over the apparatus' printing operations.

86. A printing apparatus according to Claim 85, further comprising a print data access device for performing a process to access print data to be printed by the printing apparatus during a period in which the recipient has control over the printing device.

87. A printing apparatus according to Claim 85, wherein the control device defers printing of all print jobs submitted to a print queue of the apparatus.

88. A printing apparatus according to Claim 85, wherein the control device controls all communication interfaces of the apparatus.

89. A printing apparatus according to Claim 85, wherein the control device controls network access to the apparatus.

90. A printing apparatus according to Claim 85, wherein the control device controls the print engine.



91. A printing apparatus according to Claim 86, wherein the access device performs a process to access print data over a network.

92. A printing apparatus according to Claim 91, wherein the network is an intranet or an Internet.

93. A printing apparatus according to Claim 86, wherein the access device performs a process to access at least one deferred print job in a print queue.

94. A printing apparatus according to Claim 86, wherein the access device performs a copying process.

95. A printing apparatus according to Claim 86, wherein the access device performs a facsimile process.

96. A printing apparatus according to Claim 85, wherein the control device comprises an authentication device for performing an authentication process of the recipient.

97. A printing apparatus according to Claim 96, wherein the control device permits the recipient to obtain control before the recipient is authenticated.

98. A printing apparatus according to Claim 96, wherein the control device permits the

recipient to obtain control after the recipient is authenticated.

99. A printing apparatus according to Claim 96, further comprising:

a tracking device that tracks printing resources utilized in printing data during a period in which the recipient has control of the printing operations; and

a correlating device that correlates the tracked resources to the recipient.

100. A printing apparatus according to Claim 99, wherein the tracked resources comprise at least one of a number of printed pages, recording medium type, and amount of ink, toner or other medium utilized in printing the data.

101. Computer-executable process steps for printing images on a printing device, comprising the steps of:

obtaining control over printing operations of the printing device; and

performing a process to print out an image by the printing device during a period of control over the printing device.

102. Computer-executable process steps according to Claim 101, wherein the obtaining control step comprises deferring of all print jobs submitted to a print queue for printing by the printing device.

103. Computer-executable process steps according to Claim 101, wherein the obtaining control step comprises control over all communication interfaces of the printing device.

104. Computer-executable process steps according to Claim 101, wherein the obtaining control step comprises control over network access to the printing device.

105. Computer-executable process steps according to Claim 101, wherein control over the print operations comprises control over print engine operations of the printing device.

106. Computer-executable process steps according to Claim 101, wherein the performing step comprises accessing print data over a network to be printed by the printing device.

107. Computer-executable process steps according to Claim 106, wherein the network is an Internet or an intranet.

108. Computer-executable process steps according to Claim 102, wherein the performing step comprises accessing at least one print job in the print queue.

109. Computer-executable process steps according to Claim 101, wherein the performing step comprises performing a copying operation.

110. Computer-executable process steps according to Claim 101, wherein the performing step comprises performing a facsimile operation.

111. Computer-executable process steps according to Claim 101, wherein the obtaining control step comprises authenticating a recipient.

112. Computer-executable process steps according to Claim 111, wherein the recipient obtains control before the recipient is authenticated.

113. Computer-executable process steps according to Claim 111, wherein the recipient obtains control after the recipient is authenticated.

114. Computer-executable process steps according to Claim 111, further comprising the steps of:

tracking printing device resources utilized during the performing step; and correlating the tracked resources to the recipient.

115. Computer-executable process steps according to Claim 114, wherein the tracked resources comprise at least one of a number of printed pages, recording medium type, and amount of ink, toner or other medium utilized in the performing step.

116. Computer-executable process steps for controlling printing operations of a printing device, comprising the steps of:

obtaining control over the printing operations of the printing device; and  
maintaining control over the printing operations until control is manually relinquished by a recipient who has obtained control.

117. Computer-executable process steps according to Claim 116, wherein the recipient performs a process to access print data to print out an image by the printing device while control is maintained over the printing device.

118. Computer-executable process steps according to Claim 116, wherein the obtaining control step comprises deferring of all print jobs submitted to a print queue for printing by the printing device.

119. Computer-executable process steps according to Claim 116, wherein the obtaining control step comprises control over all communication interfaces of the printing device.

120. Computer-executable process steps according to Claim 116, wherein the obtaining control step comprises control over network access to the printing device.

121. Computer-executable process steps according to Claim 116, wherein control over the

print operations comprises control over print engine operations of the printing device.

122. Computer-executable process steps according to Claim 117, wherein the performing step comprises accessing print data over a network to be printed by the printing device.

123. Computer-executable process steps according to Claim 122, wherein the network is an Internet or an intranet.

124. Computer-executable process steps according to Claim 117, wherein the performing step comprises accessing at least one print job in a print queue of the printing device.

125. Computer-executable process steps according to Claim 117, wherein the performing step comprises performing a copying operation.

126. Computer-executable process steps according to Claim 117, wherein the performing step comprises performing a facsimile operation.

127. Computer-executable process steps according to Claim 116, wherein the obtaining control step comprises authenticating a recipient.

128. Computer-executable process steps according to Claim 127, wherein the recipient obtains control before the recipient is authenticated.

129. Computer-executable process steps according to Claim 127, wherein the recipient obtains control after the recipient is authenticated.

130. Computer-executable process steps according to Claim 127, further comprising the steps of:

the recipient performing a process to access print data to print out an image by the printing device while control is maintained over the printing device;

tracking printing device resources utilized during the performing step; and

correlating the tracked resources to the recipient.

131. Computer-executable process steps according to Claim 130, wherein the tracked resources comprise at least one of a number of printed pages, recording medium type, and amount of ink, toner or other medium utilized in the performing step.

132. A method according to Claim 13, wherein the network is an Internet or an intranet.

133. An apparatus according to Claim 25, wherein the network is an Internet or an intranet.

134. Computer-executable process steps according to Claim 38, wherein the network is an Internet or an intranet.

135. A method according to Claim 1, wherein the recipient gains exclusive control of the printing device's print capabilities by being authenticated utilizing a hardware token.

136. An apparatus according to Claim 14, wherein the recipient gains exclusive control of the printing device's print capabilities by being authenticated utilizing a hardware token.

137. Computer-executable process steps according to Claim 26, wherein the recipient gains exclusive control of the printing device's print capabilities by being authenticated utilizing a hardware token.